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(54) Method and architecture for interactive two-way communication devices to interact with a network

(57) The present invention relates to navigation of the Internet by a two-way interactive communication mobile device capable of wireless communication, via a link server (300), with service providers or network servers on the Internet. After the mobile device has established a communication session with the link server over a wireless network (308), a control engine 320 in the link server is initiated and uses the computing resources of the link server device so as to be responsible for tasks that require considerable computing power and memory, such as processing of URL requests, interpretation of markup language files, management of data cache and variable states. Working with a message processor (315) in the server device, the control engine communicates with an interface engine in the mobile device using a compact data format that is efficiently transportable in the wireless data network. The interface engine typically performs tasks that do not require considerable computing power and memory, such as receiving input data from users, and the rendering of the compact data format received from the link server device, to cause the mobile device to display contents in the

markup language files on a display screen.

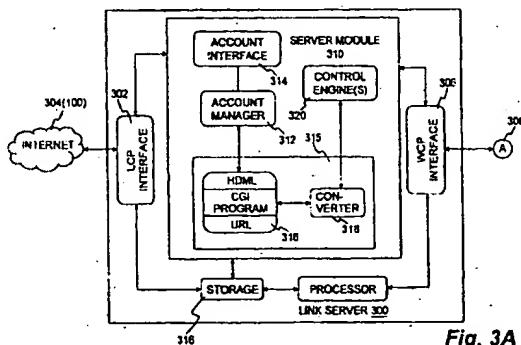


Fig. 3A



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## EUROPEAN SEARCH REPORT

Application Number

EP 99 30 7294

| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |                               |                             |  |          |   |               |            |
|---|---|-------------------------------|-----------------------------|--|----------|---|---------------|------------|
| Category  | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim             |                             |  |          |   |               |            |
| X   | MEYER M ET AL: "THE ON-THE-MOVE CONCEPT FOR MOBILE MIDDLEWARE"<br>ISS. WORLD TELECOMMUNICATIONS CONGRESS.<br>(INTERNATIONAL SWITCHING SYMPOSIUM), CA, TORONTO, PINNACLE GROUP,<br>21 September 1997 (1997-09-21), pages 373-378, XP000704489  | 1-3, 6, 7,<br>9, 10,<br>12-14 |                             |  |          |   |               |            |
| Y   | * abstract *  | 4, 8, 11                      |                             |  |          |   |               |            |
| A   | * page 374, left-hand column, line 4 -<br>page 377, left-hand column, line 11 *   | 5                             |                             |  |          |   |               |            |
| Y   | WO 97 27546 A (EX MACHINA INC)<br>31 July 1997 (1997-07-31)   | 4, 8, 11                      |                             |  |          |   |               |            |
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|   | * abstract *<br>* column 1, line 1 - column 13, line 9 *<br>* figures 1-5 *   |                               |                             |  |          |   |               |            |
| The present search report has been drawn up for all claims.   |   |                               |                             |  |          |   |               |            |
| <table border="1"> <tr> <td>Place of search</td> <td>Date of completion of the search</td> <td>Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>29 March 2001</td> <td>Lievens, K</td> </tr> </table>  |   |                               | Place of search             | Date of completion of the search   | Examiner | THE HAGUE   | 29 March 2001 | Lievens, K |
| Place of search   | Date of completion of the search  | Examiner                      |                             |  |          |   |               |            |
| THE HAGUE   | 29 March 2001   | Lievens, K                    |                             |  |          |   |               |            |
| <table border="1"> <tr> <td>CATEGORY OF CITED DOCUMENTS</td> <td colspan="2">           T : theory or principle underlying the invention<br/>           E : earlier patent document, but published on, or<br/>           after the filing date<br/>           D : document cited in the application<br/>           L : document cited for other reasons<br/>           S : member of the same patent family, corresponding<br/>           document         </td> </tr> <tr> <td>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>C : non-written disclosure<br/>P : intermediate document</td> <td colspan="2"></td> </tr> </table> |   |                               | CATEGORY OF CITED DOCUMENTS | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or<br>after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>S : member of the same patent family, corresponding<br>document |          | X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>C : non-written disclosure<br>P : intermediate document |               |            |
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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29-03-2001

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